<u>WHAT IS CLAIMED IS</u>:

1. An apparatus for transmitting a plurality of still pictures extracted from a picture stream, comprising:

a transmission request receiving unit configured to receive a transmission request for the plurality of still pictures;

a transmission sequence determining unit configured to determine a transmission sequence for the plurality of still pictures which is different than the sequence of the still pictures in the picture stream;

a transmission unit configured to transmit the still pictures according to the transmission sequence determined by the determining unit; and

a still picture control unit coupled to and configured to control the receiving unit, the determining unit, and the transmission unit.

2. The apparatus according to claim 1, wherein the plurality of still pictures comprise scene-changing still pictures and non-scene-changing still pictures, and

wherein the determining unit determines the transmission sequence be such that the scene-changing still pictures are transmitted prior to the non-scene-changing still pictures.

3. The apparatus according to claim 2, wherein the determining unit determines the transmission sequence be such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted.

4. The apparatus according to claim 1, further comprising:

a memory unit coupled to the control unit and the transmission unit, and configured to store the still pictures as a transmission stream in the sequence determined by the determining unit.

-16-

5. The apparatus according to claim 1, further comprising;

a picture stream input unit coupled to the still picture control unit and configured to input the picture stream; and

a thumbnail picture extracting unit coupled to the still picture control unit and the still picture input unit, and configured to extract the plurality of the still pictures from the picture stream input to the still picture input unit.

6. The apparatus according to claim 5, further comprising:

a picture stream control unit coupled to the picture stream input unit and the still picture control unit, and configured to transmit the transmission request received by the receiving unit to an external apparatus, and configured to control the picture stream input unit so as to input the picture stream.

7. The apparatus according to claim 1, further comprising:

a first memory unit coupled to the still picture control unit and the input unit and configured to store the input plurality of still pictures; and

a second memory unit coupled to control unit and configured to store the plurality of still pictures as a transmission stream in the sequence determined by the determining unit.

8. The apparatus according to claim 1, wherein the control unit creates a table including an offset value of a leading position of each still picture and its corresponding frame number in the picture stream, and

wherein the transmission unit transmits the table prior to transmitting the sequenced still pictures.

9. An apparatus for transmitting a plurality of still pictures extracted from a picture stream, comprising:

transmission request receiving means for receiving a transmission request for the plurality of still pictures;

transmission sequence determining means for determining a transmission sequence for the plurality of still pictures which is different than the sequence of the still pictures in the picture stream;

transmission means for transmitting the still pictures according to the transmission sequence determined by the determining means; and

still picture control means coupled to the receiving means, the determining means, and the transmission means, and for controlling an operation of the apparatus.

10. The apparatus according to claim 9, wherein the plurality of still pictures comprise scene-changing still pictures and non-scene-changing still pictures, and

wherein the determining means determines the transmission sequence be such that the scene-changing still pictures are transmitted prior to the non-scene-changing still pictures.

11. The apparatus according to claim 10, wherein the determining means determines the transmission sequence be such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted.

12. The apparatus according to claim 9, further comprising:

memory means coupled to the control means and the transmission means, and for storing the still pictures as a transmission stream in the sequence determined by the determining means.

13. The apparatus according to claim 9, further comprising;

still picture input means coupled to the still picture control means, and for inputting the picture stream; and

-18-

thumbnail picture extracting means coupled to the still picture control means and the still picture input means, and for extracting the plurality of the still pictures from the picture stream input to the still picture input means.

14. The apparatus according to claim 13, further comprising:

picture stream control means coupled to the still picture input means and the still picture control means, and for transmitting the transmission request received by the receiving means to an external apparatus, and for controlling the still picture input means so as to input the picture stream.

15. The apparatus according to claim 9, further comprising:

first memory means coupled to the still picture control means and the input means, and for storing the input plurality of still pictures; and

second memory means coupled to control means, and for storing the plurality of still pictures as a transmission stream in the sequence determined by the determining means.

16. The apparatus according to claim 9, wherein the control means creates a table including an offset value of a leading position of each still picture and its corresponding frame number in the picture stream, and

wherein the transmission means transmits the table prior to transmitting the sequenced still pictures.

17. A method for transmitting a plurality of still pictures extracted from a picture stream, comprising:

receiving a transmission request for the plurality of still pictures;

determining a transmission sequence for the plurality of still pictures which is different than the sequence of the still pictures in the picture stream; and

transmitting the still pictures according to the transmission sequence determined in the determining step.

18. The method according to claim 17, wherein the plurality of still pictures comprise scene-changing still pictures and non-scene-changing still pictures, and

wherein the determining step determines the transmission sequence be such that the scene-changing still pictures are transmitted prior to the non-scene-changing still pictures.

19. The method according to claim 18, wherein the determining step determines the transmission sequence be such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted.

20. The method according to claim 17, further comprising:

storing the still pictures as a transmission stream in the sequence determined by the determining means.

21. The method according to claim 17, further comprising;

inputting the picture stream; and

extracting the plurality of the still pictures from the picture stream input to the still picture input means.

22. The method according to claim 21, further comprising:

transmitting the transmission request received in the receiving step to an external apparatus; and

inputting the picture stream.

23. The method according to claim 17, further comprising:

storing the input plurality of still pictures in a first memory unit; and

-20-

storing the plurality of still pictures as a transmission stream in the sequence determined by the determining step in a second memory unit.

24. The method according to claim 17, further comprising:

creating a table including an offset value of a leading position of each still picture and its corresponding frame number in the picture stream, and

wherein the transmission step transmits the table prior to transmitting the sequenced still pictures.

25. A computer program product for transmitting a plurality of still pictures extracted from a picture stream, comprising:

a first computer code configured to receive a transmission request for the plurality of still pictures;

a second computer code configured to determine a transmission sequence for the plurality of still pictures which is different than the sequence of the still pictures in the picture stream; and

a third computer code configured to transmit the still pictures according to the transmission sequence determined by the second computer code.

26. The computer program product according to claim 25, wherein the plurality of still pictures comprise scene-changing still pictures and non-scene-changing still pictures, and

wherein the second computer code determines the transmission sequence be such that the scene-changing still pictures are transmitted prior to the non-scene-changing still pictures.

27. The computer program product according to claim 26, wherein the second computer code determines the transmission sequence be such that one of the non-scene-changing still pictures positioned in a middle of a largest interval between scene-changing

-21-

still pictures included in the picture stream is first transmitted after the scene-changing still pictures are transmitted.

28. The computer program product according to claim 25, further comprising:

a fourth computer code configured to store the still pictures as a transmission stream in the sequence determined by the second computer code.

29. The computer program product according to claim 25, further comprising;

a fourth computer code configured to input the picture stream; and

a fifth computer code configured to extract the plurality of the still pictures from the picture stream input to the fourth computer code.

30. The computer program product according to claim 29, further comprising:

a sixth computer code configured to transmit the transmission request received in the receiving step to an external apparatus; and

a seventh computer code configured to input the picture stream.

31. The computer program product according to claim 25, further comprising:

a fourth computer code configured to store the input plurality of still pictures in a first memory unit; and

a fifth computer code configured to store the plurality of still pictures as a transmission stream in the sequence determined by the determining step in a second memory unit.

32. The computer program product according to claim 25, further comprising:

a fourth computer code configured to create a table including an offset value of a leading position of each still picture and its corresponding frame number in the picture stream, and

wherein the third computer code transmits the table prior to transmitting the sequenced still pictures.

33. A display apparatus for displaying a plurality of still pictures extracted from a picture stream, comprising:

a still picture receiving unit configured to receive a table having values corresponding to a sequence of the plurality of still pictures included in the picture stream, and configured to receive any still pictures transmitted from an external apparatus;

a still picture memory unit coupled to the receiving unit, and configured to store the table and any received still pictures;

a still picture control unit coupled to the memory unit, and configured to read the table and determine whether or not a still picture corresponding to a value in the table is stored in the memory unit, and if the still picture is not stored in the memory unit, to select another still picture that is saved in the memory unit and is closest in sequence to the still picture; and

a display coupled to the memory unit and the control unit, and configured to display the still pictures selected by the control unit.

34. The display apparatus according to claim 33, wherein if the still picture is stored in the memory unit, the control unit selects the still picture to be displayed.

35. The display apparatus according to claim 33, wherein the control unit requests the external apparatus to transmit the still picture when the control unit determines the still picture is not stored in the memory unit.

36. A display apparatus for displaying a plurality of still pictures extracted from a picture stream, comprising:

still picture receiving means for receiving a table having values corresponding to a sequence of the plurality of still pictures included in the picture stream, and for receiving any still pictures transmitted from an external apparatus;

still picture memory means coupled to the receiving means, and for storing the table and any received still pictures;

still picture control means coupled to the memory means, and for reading the table and determining whether or not a still picture corresponding to a value in the table is stored in the memory means, and if the still picture is not stored in the memory means, for selecting another still picture that is saved in the memory means and is closest in sequence to the still picture; and

display means coupled to the memory means and the control means, and for displaying the still pictures selected by the control means.

37. The display apparatus according to claim 36, wherein if the still picture is stored in the memory means, the control means selects the still picture to be displayed.

38. The display apparatus according to claim 36, wherein the control means requests the external apparatus to transmit the still picture when the control means determines the still picture is not stored in the memory means.

39. A display method for displaying a plurality of still pictures extracted from a picture stream, comprising:

receiving a table having values corresponding to a sequence of the plurality of still pictures included in the picture stream;

receiving any still pictures transmitted from an external apparatus;

storing the table and any received still pictures in a memory unit;

-24-

reading the table and determining whether or not a still picture corresponding to a value in the table is stored in the memory unit, and if the still picture is not stored in the memory unit, selecting another still picture that is saved in the memory unit and is closest in sequence to the still picture; and

displaying the still pictures selected in the reading step.

40. The display method according to claim 39, wherein if the still picture is stored in the memory unit, the reading step selects the still picture to be displayed.

41. The display method according to claim 39, further comprising:

requesting the external apparatus to transmit the still picture when the reading step determines the still picture is not stored in the memory unit.

42. A computer program product for displaying a plurality of still pictures extracted from a picture stream, comprising:

a first computer code configured to receive a table having values corresponding to a sequence of the plurality of still pictures included in the picture stream;

a second computer code configured to receive any still pictures transmitted from an external apparatus;

a third computer code configured to store the table and any received still pictures in a memory unit;

a fourth computer code configured to read the table and determine whether or not a still picture corresponding to a value in the table is stored in the memory unit, and if the still picture is not stored in the memory unit, to select another still picture that is saved in the memory unit and is closest in sequence to the still picture; and

a fifth computer code configured to display the still pictures selected by the fourth computer code.

43. The computer program product according to claim 39, wherein if the still picture is stored in the memory unit, the fourth computer code selects the still picture to be displayed.

44. The computer program product according to claim 39, further comprising:

a fifth computer code configured to request the external apparatus to transmit the still picture when the fourth computer code determines the still picture is not stored in the memory unit.